

110TH CONGRESS
1ST SESSION

H. R. 362

To authorize science scholarships for educating mathematics and science teachers, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JANUARY 10, 2007

Mr. GORDON of Tennessee (for himself and Mr. HALL of Texas) introduced the following bill; which was referred to the Committee on Science and Technology

A BILL

To authorize science scholarships for educating mathematics and science teachers, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. TABLE OF CONTENTS.**

4 The table of contents for this Act is as follows:

- Sec. 1. Table of contents.
- Sec. 2. Findings.
- Sec. 3. Definitions.

TITLE I—SCIENCE SCHOLARSHIPS

- Sec. 101. Short title.
- Sec. 102. Findings.
- Sec. 103. Policy objective.
- Sec. 104. Robert Noyce Teacher Scholarship Program.

TITLE II—MATHEMATICS AND SCIENCE EDUCATION IMPROVEMENT

Sec. 201. Mathematics and science education partnerships amendments.
 Sec. 202. Teacher institutes.
 Sec. 203. Graduate degree program.
 Sec. 204. Curricular materials.
 Sec. 205. Science, Technology, Engineering, and Mathematics Talent Expansion Program.

1 **SEC. 2. FINDINGS.**

2 Congress finds the following:

3 (1) The National Science Foundation has made
 4 significant and valuable contributions to the im-
 5 provement of K–12 and undergraduate science, tech-
 6 nology, engineering, and mathematics education
 7 throughout its 56 year history.

8 (2) Under section 3 of the National Science
 9 Foundation Act of 1950 (42 U.S.C. 1862), the Na-
 10 tional Science Foundation is explicitly required to
 11 strengthen science, mathematics, and engineering re-
 12 search potential and education programs at all lev-
 13 els.

14 **SEC. 3. DEFINITIONS.**

15 In this Act:

16 (1) The term “cost of attendance” has the
 17 meaning given that term in section 472 of the High-
 18 er Education Act of 1965 (20 U.S.C. 1087ll).

19 (2) The term “Director” means the Director of
 20 the National Science Foundation.

21 (3) The term “institution of higher education”
 22 has the meaning given that term in section 101(a)

1 of the Higher Education Act of 1965 (20 U.S.C.
2 1001(a)).

3 (4) The term “mathematics and science teach-
4 er” means a mathematics, science, or technology
5 teacher at the elementary school or secondary school
6 level.

7 **TITLE I—SCIENCE** 8 **SCHOLARSHIPS**

9 **SEC. 101. SHORT TITLE.**

10 This title may be cited as the “10,000 Teachers, 10
11 Million Minds Science and Math Scholarship Act”.

12 **SEC. 102. FINDINGS.**

13 Congress finds the following:

14 (1) The prosperity the United States enjoys
15 today is due in no small part to investments the Na-
16 tion has made in research and development over the
17 past 50 years.

18 (2) Corporate, government, and national sci-
19 entific and technical leaders have raised concerns
20 that current trends affecting the science and tech-
21 nology enterprise of the Nation could result in ero-
22 sion of this past success and jeopardize future pros-
23 perity.

24 (3) The National Academy of Sciences, the Na-
25 tional Academy of Engineering, and the Institute of

1 Medicine were tasked in a congressional request to
2 recommend actions that the Federal Government
3 could take to enhance the science and technology en-
4 terprise so that the United States can successfully
5 compete, prosper, and be secure in the global com-
6 munity of the 21st century.

7 (4) The Academies' highest priority rec-
8 ommendation in its report, "Rising Above the Gath-
9 ering Storm: Energizing and Employing America for
10 a Brighter Economic Future", is to improve K-12
11 mathematics and science education, and the Acad-
12 emies' first recommended action item is to institute
13 a major scholarship program to recruit and educate
14 annually 10,000 mathematics and science teachers.

15 **SEC. 103. POLICY OBJECTIVE.**

16 In carrying out the program under section 104, the
17 National Science Foundation shall seek to increase by up
18 to 10,000 per year the number of elementary and sec-
19 ondary mathematics and science teachers in the Nation's
20 schools having both exemplary subject knowledge and ped-
21 agogical skills.

1 **SEC. 104. ROBERT NOYCE TEACHER SCHOLARSHIP PRO-**
2 **GRAM.**

3 (a) PROGRAM AMENDMENTS.—Section 10 of the Na-
4 tional Science Foundation Authorization Act of 2002 (42
5 U.S.C. 1862n–1) is amended—

6 (1) by inserting “**TEACHER**” after “**NOYCE**”
7 in the section heading;

8 (2) in subsection (a)(1)—

9 (A) by striking “to provide scholarships,
10 stipends, and programming designed”;

11 (B) by inserting “and to provide scholar-
12 ships and stipends to students participating in
13 the program” after “science teachers”; and

14 (C) by inserting “Teacher” after “Noyce”;

15 (3) in subsection (a)(3)(A)—

16 (A) by striking “encourage top college jun-
17 iors and seniors” and inserting “recruit and
18 prepare undergraduate students”; and

19 (B) by inserting “qualified as” after “to
20 become”;

21 (4) in subsection (a)(3)(A)(ii)—

22 (A) by striking “programs to help scholar-
23 ship recipients” and inserting “academic
24 courses and early field teaching experiences de-
25 signed to prepare students participating in the
26 program”;

1 (B) by striking “programs that will result
2 in” and inserting “such preparation as is nec-
3 essary to meet requirements for”; and

4 (C) by striking “licensing; and” and insert-
5 ing “licensing;”;

6 (5) in subsection (a)(3)(A)(iii)—

7 (A) by striking “scholarship recipients”
8 and inserting “students participating in the
9 program”;

10 (B) by striking “enable the recipients” and
11 inserting “enable the students”; and

12 (C) by striking “; or” and inserting “;
13 and”;

14 (6) in subsection (a)(3)(A) by inserting at the
15 end the following new clause:

16 “(iv) providing summer internships
17 for freshman students participating in the
18 program; or”;

19 (7) in subsection (a)(3)(B)—

20 (A) by striking “encourage” and inserting
21 “recruit and prepare”; and

22 (B) by inserting “qualified as” after “to
23 become”;

24 (8) by amending clause (ii) of subsection
25 (a)(3)(B) to read as follows:

1 “(ii) offering academic courses and
2 field teaching experiences designed to pre-
3 pare stipend recipients to teach in elemen-
4 tary schools and secondary schools, includ-
5 ing such preparation as is necessary to
6 meet requirements for teacher certification
7 or licensing;”;

8 (9) in subsection (a) by inserting at the end the
9 following new paragraph:

10 “(4) ELIGIBILITY REQUIREMENT.—To be eligi-
11 ble for an award under this section, an institution
12 of higher education (or consortia of such institu-
13 tions) shall ensure that specific faculty members and
14 staff from the institution’s mathematics, science, or
15 engineering departments and specific education fac-
16 ulty are designated to carry out the development and
17 implementation of the program. An institution of
18 higher education may also include teacher leaders to
19 participate in developing the pedagogical content of
20 the program and to supervise students participating
21 in the program in their field teaching experiences.
22 No institution of higher education shall be eligible
23 for an award unless faculty from the institution’s
24 mathematics, science, or engineering departments
25 are active participants in the program.”;

1 (10) in subsection (b)(1)(A)—

2 (A) by striking “scholarship or stipend”;

3 (B) by inserting “and summer intern-
4 ships” after “number of scholarships”; and

5 (C) by inserting “the type of activities pro-
6 posed for the recruitment of students to the
7 program,” after “intends to award,”;

8 (11) in subsection (b)(1)(B)—

9 (A) by striking “scholarship or stipend”;
10 and

11 (B) by striking “; and” and inserting “,
12 which may include a description of any existing
13 programs at the applicant’s institution that are
14 targeted to the education of mathematics and
15 science teachers and the number of teachers
16 graduated annually from such programs;”;

17 (12) in subsection (b)(1), by striking subpara-
18 graph (C) and inserting the following:

19 “(C) a description of the academic courses
20 and field teaching experiences required under
21 subsection (a)(3)(A)(ii) and (B)(ii), including—

22 “(i) a description of the under-
23 graduate program that will enable a stu-
24 dent to graduate in 4 years with a major
25 in mathematics, science, or engineering

1 and to obtain teacher certification or li-
2 censing;

3 “(ii) a description of the field teaching
4 experiences proposed; and

5 “(iii) evidence of agreements between
6 the applicant and the schools or school dis-
7 tricts that are identified as the locations at
8 which field teaching experiences will occur;

9 “(D) a description of the programs re-
10 quired under subsection (a)(3)(A)(iii) and
11 (B)(iii), including activities to assist new teach-
12 ers in fulfilling their service requirements under
13 this section; and

14 “(E) an identification of the applicant’s
15 mathematics, science, or engineering faculty
16 and its education faculty who will carry out the
17 development and implementation of the pro-
18 gram as required under subsection (a)(4).”;

19 (13) in subsection (b)(2)—

20 (A) by redesignating subparagraphs (B),
21 (C), (D), and (E) as subparagraphs (C), (D),
22 (E) and (F), respectively; and

23 (B) by inserting after subparagraph (A) a
24 new subparagraph as follows:

1 “(B) the extent to which the applicant’s
2 mathematics, science, or engineering faculty
3 and its education faculty have worked or will
4 work collaboratively to design new or revised
5 curricula that recognizes the specialized peda-
6 gogy required to teach mathematics and science
7 effectively in elementary and secondary
8 schools;”;

9 (14) in subsection (c)(1)(B), by striking “2
10 years” and inserting “3 years”;

11 (15) in subsection (c)(3)—

12 (A) by striking “\$7,500” and inserting
13 “\$10,000”; and

14 (B) by striking “2 years of scholarship
15 support” and inserting “3 years of scholarship
16 support, unless the Director establishes a policy
17 by which part-time students may receive addi-
18 tional years of support”;

19 (16) in subsection (c)(4)—

20 (A) by striking “6 years” and inserting “8
21 years”;

22 (B) by inserting “, with a maximum serv-
23 ice requirement of 6 years” after “was re-
24 ceived”; and

1 (C) by striking “Service required under
2 this paragraph shall be performed in a high-
3 need local educational agency.”;

4 (17) in subsection (c), by adding at the end a
5 new paragraph as follows:

6 “(5) EXCEPTION.—The period of service obliga-
7 tion under paragraph (4) is reduced by 1 year for
8 scholarship recipients whose service is performed in
9 a high-need local educational agency.”;

10 (18) in subsection (d)(1), by striking “to re-
11 ceive certification or licensing to teach” and insert-
12 ing “established under subsection (a)(3)(B)”;

13 (19) in subsection (d)(2), by inserting “and
14 professional achievement” after “academic merit”;

15 (20) in subsection (d)(3), by striking “1 year”
16 and inserting “16 months”;

17 (21) in subsection (d)(4)—

18 (A) by striking “6 years” and inserting “4
19 years”; and

20 (B) by striking “for each year a stipend
21 was received”;

22 (22) in subsection (g)(2)(A)—

23 (A) by striking “Treasurer of the United
24 States,” and inserting “Treasurer of the United
25 States.”; and

1 (B) by striking “multiplied by 2.”

2 (23) in subsection (i)(3), by inserting “or had
3 a career in” after “is working in”;

4 (24) in subsection (i)—

5 (A) by striking “and” at the end of para-
6 graph (4);

7 (B) by striking the period at the end of
8 paragraph (5) and inserting “; and”; and

9 (C) by adding at the end the following:

10 “(6) the term ‘teacher leader’ means a mathe-
11 matics or science teacher who works to improve the
12 instruction of mathematics or science in kinder-
13 garden through grade 12 through—

14 “(A) participating in the development or
15 revision of science, mathematics, engineering, or
16 technology curricula;

17 “(B) serving as a mentor to mathematics
18 or science teachers;

19 “(C) coordinating and assisting teachers in
20 the use of hands-on inquiry materials, equip-
21 ment, and supplies, and when appropriate, su-
22 pervising acquisition and repair of such mate-
23 rials;

1 “(D) providing in-classroom teaching as-
2 sistance to mathematics or science teachers;
3 and

4 “(E) providing professional development,
5 for the purposes of training other teacher lead-
6 ers, to mathematics and science teachers.”; and
7 (25) by adding at the end the following:

8 “(j) MATHEMATICS AND SCIENCE SCHOLARSHIP
9 GIFT FUND.—In accordance with section 11(f) of the Na-
10 tional Science Foundation Act of 1950, the Director is au-
11 thorized to accept donations from the private sector to
12 support scholarships, stipends, or internships associated
13 with programs under this section.

14 “(k) ASSESSMENT OF TEACHER RETENTION.—Not
15 later than 4 years after the date of enactment of this sub-
16 section, the Director shall transmit to Congress a report
17 on the effectiveness of the program carried out under this
18 section regarding the retention of participants in the
19 teaching profession beyond the service obligation required
20 under this section.

21 “(l) AUTHORIZATION OF APPROPRIATIONS.—Except
22 as provided in subsection (m), there are authorized to be
23 appropriated to the Director for the Robert Noyce Teacher
24 Scholarship Program—

1 “(1) \$70,000,000 for fiscal year 2008, of which
2 at least \$10,500,000 shall be used for capacity
3 building activities described in subsection
4 (a)(3)(A)(ii) and (iii) and (B)(ii) and (iii);

5 “(2) \$101,000,000 for fiscal year 2009, of
6 which at least \$15,000,000 shall be used for capac-
7 ity building activities described in subsection
8 (a)(3)(A)(ii) and (iii) and (B)(ii) and (iii);

9 “(3) \$133,000,000 for fiscal year 2010, of
10 which at least \$20,000,000 shall be used for capac-
11 ity building activities described in subsection
12 (a)(3)(A)(ii) and (iii) and (B)(ii) and (iii);

13 “(4) \$164,000,000 for fiscal year 2011, of
14 which at least \$25,000,000 shall be used for capac-
15 ity building activities described in subsection
16 (a)(3)(A)(ii) and (iii) and (B)(ii) and (iii); and

17 “(5) \$196,000,000 for fiscal year 2012, of
18 which at least \$29,000,000 shall be used for capac-
19 ity building activities described in subsection
20 (a)(3)(A)(ii) and (iii) and (B)(ii) and (iii).

21 “(m) EXCEPTION.—For any fiscal year for which the
22 funding allocated for activities under this section is less
23 than \$70,000,000, the amount of funding available for ca-
24 pacity building activities described in paragraphs (1)

1 through (5) of subsection (l) shall not exceed 15 percent
2 of the allocated funds.”.

3 (b) CONFORMING AMENDMENT.—Section 8(6) of the
4 National Science Foundation Authorization Act of 2002
5 is amended—

6 (1) in the paragraph heading by inserting
7 “TEACHER” after “NOYCE”; and

8 (2) by inserting “Teacher” after “Noyce”.

9 **TITLE II—MATHEMATICS AND**
10 **SCIENCE EDUCATION IM-**
11 **PROVEMENT**

12 **SEC. 201. MATHEMATICS AND SCIENCE EDUCATION PART-**
13 **NERSHIPS AMENDMENTS.**

14 Section 9 of the National Science Foundation Au-
15 thorization Act of 2002 (42 U.S.C. 1862n) is amended—

16 (1) in subsection (a)(2)—

17 (A) by striking “(A)”;

18 (B) by striking subparagraph (B);

19 (C) by inserting “, through 1 or more of
20 its departments in science, mathematics, or en-
21 gineering,” after “institution of higher edu-
22 cation”; and

23 (D) by striking “a State educational agen-
24 cy” and inserting “education faculty from the

1 participating institution or institutions of high-
2 er education, a State educational agency,”;

3 (2) in subsection (a)(3)(B)—

4 (A) by inserting “content-specific” before
5 “professional development programs”;

6 (B) by inserting “which are” before “de-
7 signed”; and

8 (C) by inserting “and which may include
9 teacher training activities to prepare mathe-
10 matics and science teachers to teach Advanced
11 Placement and International Baccalaureate
12 mathematics and science courses” after “and
13 science teachers”;

14 (3) in subsection (a)(3)(C)—

15 (A) by inserting “and laboratory experi-
16 ences” after “technology”; and

17 (B) by inserting “and laboratory” after
18 “provide technical”;

19 (4) in subsection (a)(3)(I) by inserting “includ-
20 ing model induction programs for teachers in their
21 first 2 years of teaching,” after “and science,”;

22 (5) in subsection (a)(3)(K) by striking “devel-
23 oping and offering mathematics or science enrich-
24 ment programs for students, including after-school
25 and summer programs;” and inserting “developing

1 educational programs and materials for use in and
2 conducting mathematics or science enrichment pro-
3 grams for students, including after-school programs
4 and summer camps for students described in sub-
5 section (b)(2)(G);”;

6 (6) in subsection (a) by inserting at the end the
7 following:

8 “(8) MASTER’S DEGREE PROGRAMS.—Activities
9 carried out in accordance with paragraph (3)(B)
10 shall include the development and offering of mas-
11 ter’s degree programs for in-service mathematics
12 and science teachers that will strengthen their sub-
13 ject area knowledge and pedagogical skills, as de-
14 scribed in section 203 of the Act enacting this para-
15 graph. Grants provided under this section may be
16 used to develop and implement courses of instruction
17 for the master’s degree programs, which may involve
18 online learning, and develop related educational ma-
19 terials.

20 “(9) MENTORS FOR ADVANCED PLACEMENT
21 COURSES TEACHERS AND STUDENTS.—Partnerships
22 carrying out activities to prepare mathematics and
23 science teachers to teach Advanced Placement and
24 International Baccalaureate mathematics and
25 science courses in accordance with paragraph (3)(B)

1 shall encourage companies employing scientists,
2 mathematicians, or engineers to provide mentors to
3 teachers and students and provide for the coordina-
4 tion of such mentoring activities.

5 “(10) INVENTIVENESS.—Activities carried out
6 in accordance with paragraph (3)(H) may include
7 the development and dissemination of curriculum
8 tools that will help foster inventiveness and innova-
9 tion.”;

10 (7) in subsection (b)(2) by redesignating sub-
11 paragraphs (E) and (F) as subparagraphs (F) and
12 (G), respectively, and inserting after subparagraph
13 (D) the following new subparagraph:

14 “(E) the extent to which the evaluation de-
15 scribed in paragraph (1)(E) will be independent
16 and based on objective measures;”;

17 (8) in subsection (b)(3)(A) by striking “and” at
18 the end;

19 (9) in subsection (b)(3) by redesignating sub-
20 paragraph (B) as subparagraph (C) and inserting
21 after subparagraph (A) the following new subpara-
22 graph:

23 “(B) give priority to applications that in-
24 clude teacher training activities as the main
25 focus of the proposal; and”;

1 (10) in subsection (b) by inserting at the end
2 the following:

3 “(4) MINIMUM AND MAXIMUM GRANT SIZE.—A
4 grant awarded under this section shall be not less
5 than \$75,000 or greater than \$2,000,000 for any
6 fiscal year.”;

7 (11) in subsection (c)—

8 (A) by striking paragraph (2);

9 (B) by redesignating paragraphs (3), (4),
10 and (5) as paragraphs (4), (5), and (6), respec-
11 tively; and

12 (C) by inserting after paragraph (1) the
13 following new paragraphs:

14 “(2) REPORT ON MODEL PROJECTS.—The Di-
15 rector shall determine which completed projects
16 funded through the program under this section
17 should be seen as models to be replicated on a more
18 expansive basis at the State or national levels. Not
19 later than 1 year after the date of enactment of this
20 paragraph, the Director shall transmit a report de-
21 scribing the results of this study to the Committee
22 on Science and the Committee on Education and the
23 Workforce of the House of Representatives and to
24 the Committee on Commerce, Science, and Trans-

1 portation and the Committee on Health, Education,
2 Labor, and Pensions of the Senate.

3 “(3) REPORT ON EVALUATIONS.—Not later
4 than 4 years after the date of enactment of this
5 paragraph, the Director shall transmit a report sum-
6 marizing the evaluations required under subsection
7 (b)(1)(E) of grants received under this program and
8 describing any changes to the program recommended
9 as a result of these evaluations to the Committee on
10 Science and the Committee on Education and the
11 Workforce of the House of Representatives and to
12 the Committee on Commerce, Science, and Trans-
13 portation and the Committee on Health, Education,
14 Labor, and Pensions of the Senate. Such report
15 shall be made widely available to the public.”.

16 **SEC. 202. TEACHER INSTITUTES.**

17 (a) NATIONAL SCIENCE FOUNDATION INSTITUTES.—

18 (1) IN GENERAL.—The Director shall establish
19 a grant program to provide for summer or academic
20 year teacher institutes or workshops authorized by
21 section 9(a)(3)(B) of the National Science Founda-
22 tion Authorization Act of 2002 (42 U.S.C.
23 1862n(a)(3)(B)) and shall allow grantees under the
24 Teacher Institutes for the 21st Century program to
25 operate 1 to 2 week summer teacher institutes with

1 the goal of reaching the maximum number of in-
2 service mathematics and science teachers, particu-
3 larly elementary and middle school teachers, to im-
4 prove their content knowledge and pedagogical skills.

5 (2) ADVANCED PLACEMENT TRAINING.—The
6 Director shall ensure that activities supported for
7 awards under paragraph (1) include the development
8 and implementation of teacher training activities to
9 prepare mathematics and science teachers to teach
10 Advanced Placement and International Baccalaureate
11 mathematics and science courses.

12 (3) AUTHORIZATION OF APPROPRIATIONS.—
13 There are authorized to be appropriated to the Na-
14 tional Science Foundation for the purposes of this
15 section, \$32,000,000 for fiscal year 2008,
16 \$35,200,000 for fiscal year 2009, \$38,700,000 for
17 fiscal year 2010, \$42,600,000 for fiscal year 2011,
18 and \$46,800,000 for fiscal year 2012.

19 (b) LABORATORY SCIENCE TEACHER PROFESSIONAL
20 DEVELOPMENT.—There are authorized to be appropriated
21 to the Secretary of Energy for the Laboratory Science
22 Teacher Professional Development program, \$3,000,000
23 for fiscal year 2008, \$8,000,000 for fiscal year 2009,
24 \$10,000,000 for fiscal year 2010, \$10,000,000 for fiscal
25 year 2011, and \$10,000,000 for fiscal year 2012.

1 **SEC. 203. GRADUATE DEGREE PROGRAM.**

2 (a) IN GENERAL.—The Director shall ensure that
3 master’s degree programs for in-service mathematics and
4 science teachers that will strengthen their subject area
5 knowledge and pedagogical skills are instituted in accord-
6 ance with section 9(a)(8) of the National Science Founda-
7 tion Authorization Act of 2002 (42 U.S.C. 1862n(a)(8)).
8 The degree programs shall be designed for current teach-
9 ers, who will enroll as part-time students, and to allow
10 participants to obtain master’s degrees within a period of
11 2 years.

12 (b) DISTRIBUTION OF AWARDS.—The Director shall,
13 in awarding grants to carry out subsection (a), consider
14 the distribution of awards among institutions of higher
15 education of different sizes and geographic locations.

16 (c) PROGRAM ACTIVITIES.—Activities supported
17 through master’s degree programs established under sub-
18 section (a) may include—

19 (1) development of courses of instruction and
20 related educational materials;

21 (2) stipends to defray the cost of attendance for
22 students in the degree program; and

23 (3) acquisition of computer and networking
24 equipment needed for online instruction under the
25 degree program.

1 (d) AUTHORIZATION OF APPROPRIATIONS.—There
 2 are authorized to be appropriated to the National Science
 3 Foundation for the purposes of this section \$46,000,000
 4 for fiscal year 2008, \$50,600,000 for fiscal year 2009,
 5 \$55,700,000 for fiscal year 2010, \$61,200,000 for fiscal
 6 year 2011, and \$67,300,000 for fiscal year 2012.

7 **SEC. 204. CURRICULAR MATERIALS.**

8 The Director, in consultation with the Secretary of
 9 Education, shall convene a national panel of experts on
 10 mathematics and science education to identify and collect
 11 K–12 mathematics and science teaching materials that
 12 have been demonstrated to be effective and to recommend
 13 the development of new materials in areas where effective
 14 materials do not exist. The Director and Secretary shall
 15 develop ways to disseminate effective materials and sup-
 16 port efforts to develop new materials, in accordance with
 17 the recommendations of the national panel.

18 **SEC. 205. SCIENCE, TECHNOLOGY, ENGINEERING, AND**
 19 **MATHEMATICS TALENT EXPANSION PRO-**
 20 **GRAM.**

21 (a) AMENDMENTS.—Section 8(7) of the National
 22 Science Foundation Authorization Act of 2002 is amend-
 23 ed—

24 (1) in subparagraph (A) by striking “competi-
 25 tive, merit-based” and all that follows through “in

1 recent years” and inserting “competitive, merit-re-
2 viewed multiyear grants for eligible applicants to im-
3 prove undergraduate education in science, mathe-
4 matics, engineering, and technology through—

5 “(i) the creation of programs to increase
6 the number of students studying toward and
7 completing associate’s or bachelor’s degrees in
8 science, technology, engineering, and mathe-
9 matics, particularly in fields that have faced de-
10 clining enrollment in recent years; and

11 “(ii) the creation of centers (in this para-
12 graph referred to as ‘Centers’) to develop un-
13 dergraduate curriculum, teaching methods for
14 undergraduate courses, and methods to better
15 train professors and teaching assistants who
16 teach undergraduate courses to increase the
17 number of students completing undergraduate
18 courses in science, technology, engineering, and
19 mathematics, including the number of non-
20 majors, and to improve student academic
21 achievement in those courses.

22 Grants made under clause (ii) shall be awarded
23 jointly through the Education and Human Re-
24 sources Directorate and at least 1 research direc-
25 torate of the Foundation.”;

1 (2) in subparagraph (B) by striking “under this
2 paragraph” and inserting “under subparagraph
3 (A)(i)”;

4 (3) in subparagraph (C)—

5 (A) by inserting “(i)” before “The types
6 of”;

7 (B) by redesignating clauses (i) through
8 (vi) as subclauses (I) through (VI), respectively;

9 (C) by striking “under this paragraph”
10 and inserting “under subparagraph (A)(i)”; and

11 (D) by adding at the end the following new
12 clause:

13 “(i) The types of activities the Foundation may
14 support under subparagraph (A)(ii) include—

15 “(I) creating model curricula and labora-
16 tory programs;

17 “(II) developing and demonstrating re-
18 search-based instructional methods and tech-
19 nologies;

20 “(III) developing methods to train grad-
21 uate students and faculty to be more effective
22 teachers of undergraduates;

23 “(IV) conducting programs to disseminate
24 curricula, instructional methods, or training

1 methods to faculty at the grantee institutions
2 and at other institutions;

3 “(V) conducting assessments of the effec-
4 tiveness of the Center at accomplishing the
5 goals described in subparagraph (A)(ii); and

6 “(VI) conducting any other activities the
7 Director determines will accomplish the goals
8 described in subparagraph (A)(ii).”;

9 (4) in subparagraph (D)(i), by striking “under
10 this paragraph” and inserting “under subparagraph
11 (A)(i)”;

12 (5) in subparagraph (D)(ii), by striking “under
13 this paragraph” and inserting “under subparagraph
14 (A)(i)”;

15 (6) after subparagraph (D)(iii), by adding at
16 the end the following new clause:

17 “(iv) A grant under subparagraph (A)(ii) shall
18 be awarded for 5 years, and the Director may extend
19 such a grant for up to 2 additional 3 year periods.”;

20 (7) in subparagraph (E), by striking “under
21 this paragraph” both places it appears and inserting
22 “under subparagraph (A)(i)”;

23 (8) by redesignating subparagraph (F) as sub-
24 paragraph (J); and

1 (9) by inserting after subparagraph (E) the fol-
2 lowing new subparagraphs:

3 “(F) Grants awarded under subparagraph
4 (A)(ii) shall be carried out by a department or de-
5 partments of science, mathematics, or engineering at
6 institutions of higher education (or a consortia
7 thereof), which may partner with education faculty.
8 Applications for awards under subparagraph (A)(ii)
9 shall be submitted to the Director at such time, in
10 such manner, and containing such information as
11 the Director may require. At a minimum, the appli-
12 cation shall include—

13 “(i) a description of the activities to be
14 carried out by the Center;

15 “(ii) a plan for disseminating programs re-
16 lated to the activities carried out by the Center
17 to faculty at the grantee institution and at
18 other institutions;

19 “(iii) an estimate of the number of faculty,
20 graduate students (if any), and undergraduate
21 students who will be affected by the activities
22 carried out by the Center; and

23 “(iv) a plan for assessing the effectiveness
24 of the Center at accomplishing the goals de-
25 scribed in subparagraph (A)(ii).

1 “(G) In evaluating the applications submitted
2 under subparagraph (F), the Director shall consider,
3 at a minimum—

4 “(i) the ability of the applicant to effec-
5 tively carry out the proposed activities, includ-
6 ing the dissemination activities described in
7 subparagraph (C)(ii)(IV); and

8 “(ii) the extent to which the faculty, staff,
9 and administrators of the applicant institution
10 are committed to improving undergraduate
11 science, mathematics, and engineering edu-
12 cation.

13 “(H) In awarding grants under subparagraph
14 (A)(ii), the Director shall endeavor to ensure that a
15 wide variety of science, technology, engineering, and
16 mathematics fields and types of institutions of high-
17 er education, including 2-year colleges, are covered,
18 and that—

19 “(i) at least 1 Center is housed at a Doc-
20 toral/Research University as defined by the
21 Carnegie Foundation for the Advancement of
22 Teaching; and

23 “(ii) at least 1 Center is focused on im-
24 proving undergraduate education in an inter-
25 disciplinary area.

1 “(I) The Director shall convene an annual
2 meeting of the awardees under this paragraph to
3 foster collaboration and to disseminate the results of
4 the Centers and the other activities funded under
5 this paragraph.”.

6 (b) REPORT ON DATA COLLECTION.—Not later than
7 180 days after the date of enactment of this Act, the Di-
8 rector shall transmit to Congress a report on how the Di-
9 rector is determining whether current grant recipients in
10 the Science, Technology, Engineering, and Mathematics
11 Talent Expansion Program are making satisfactory
12 progress as required by section 8(7)(D)(ii) of the National
13 Science Foundation Authorization Act of 2002 and what
14 funding actions have been taken as a result of the Direc-
15 tor’s determinations.

16 (c) AUTHORIZATION OF APPROPRIATIONS.—There
17 are authorized to be appropriated to the National Science
18 Foundation for the program described in paragraph (7)
19 of section 8 of the National Science Foundation Author-
20 ization Act of 2002—

21 (1) \$44,000,000 for fiscal year 2008, of which
22 \$4,000,000 shall be for the grants described in sub-
23 paragraph (A)(ii) of that paragraph;

1 (2) \$55,000,000 for fiscal year 2009, of which
2 \$10,000,000 shall be for the grants described in
3 subparagraph (A)(ii) of that paragraph;

4 (3) \$60,000,000 for fiscal year 2010, of which
5 \$10,000,000 shall be for the grants described in
6 subparagraph (A)(ii) of that paragraph;

7 (4) \$60,000,000 for fiscal year 2011, of which
8 \$10,000,000 shall be for the grants described in
9 subparagraph (A)(ii) of that paragraph; and

10 (5) \$60,000,000 for fiscal year 2012, of which
11 \$10,000,000 shall be for the grants described in
12 subparagraph (A)(ii) of that paragraph.

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